

*Lecture 1*

# **Impact of Earthquakes**

*NPEEE Teaching Resource Material for Teachers in Architecture Colleges*

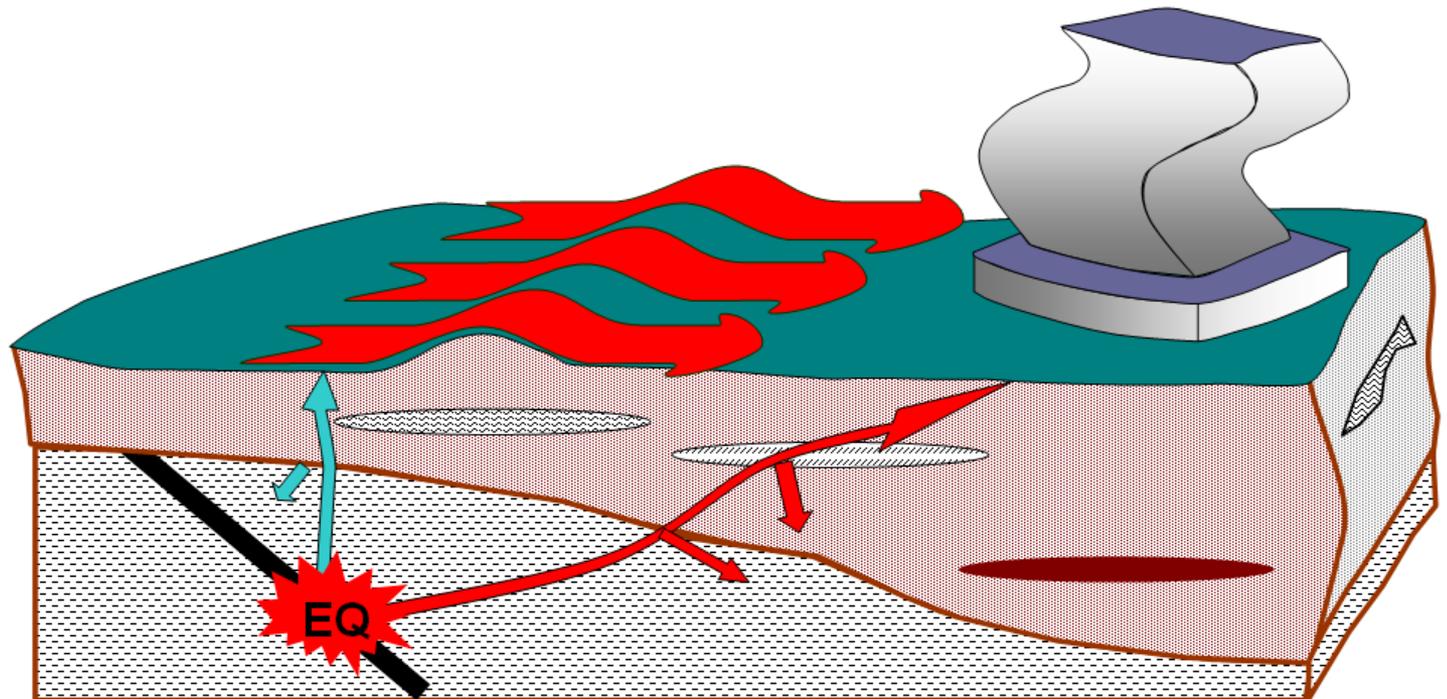
**Earthquake Design Concepts**

*June 2006*

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# Earthquake

An Earthquake is sudden, rapid shaking of the Earth caused by the release of the energy stored in the rocks.



# Impact of Earthquakes

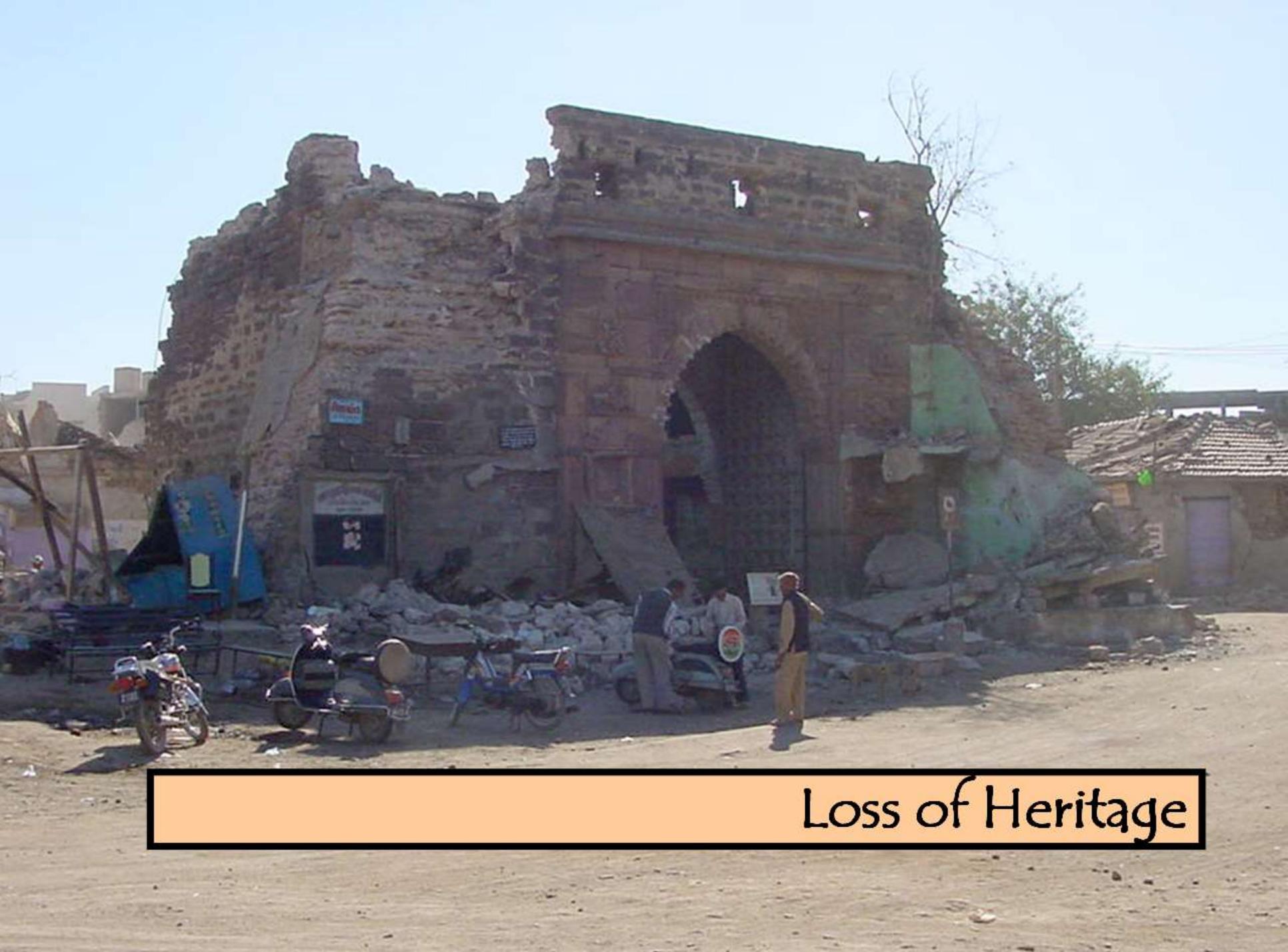
- Life and Society
  - Property ( Buildings, Structures and their contents)
  - Civic Amenities
  - Lifeline facilities
  - Heritage
  - Economy and development
- ..... virtually, everything!!!



Life and Society: Fatalities



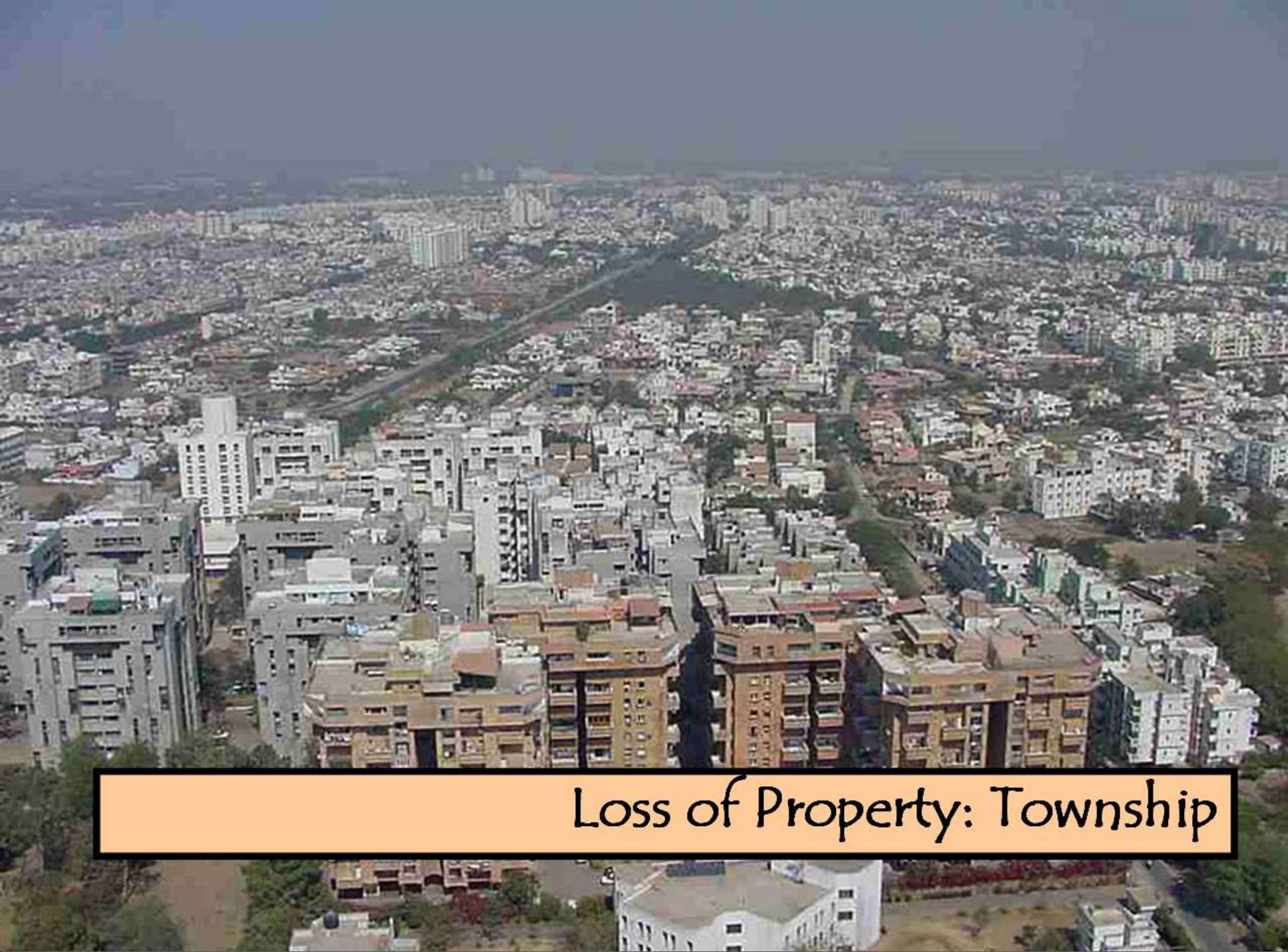
Loss of Property



Loss of Heritage



Loss of Property: Components



Loss of Property: Township



Loss of Property: Buildings



Civic Amenities : Health Centres



Civic Amenities: Hospitals



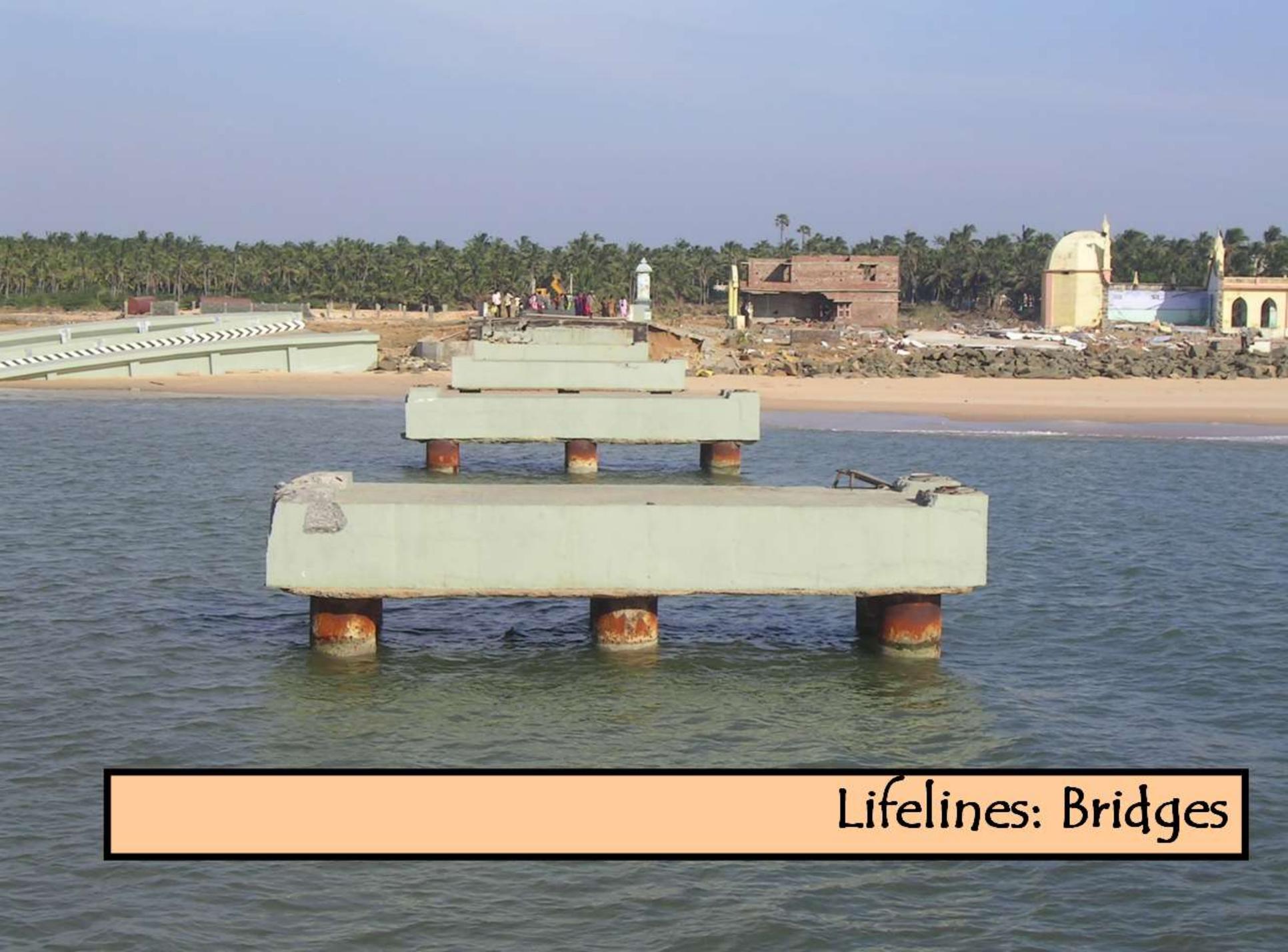
Civic Amenities: Schools



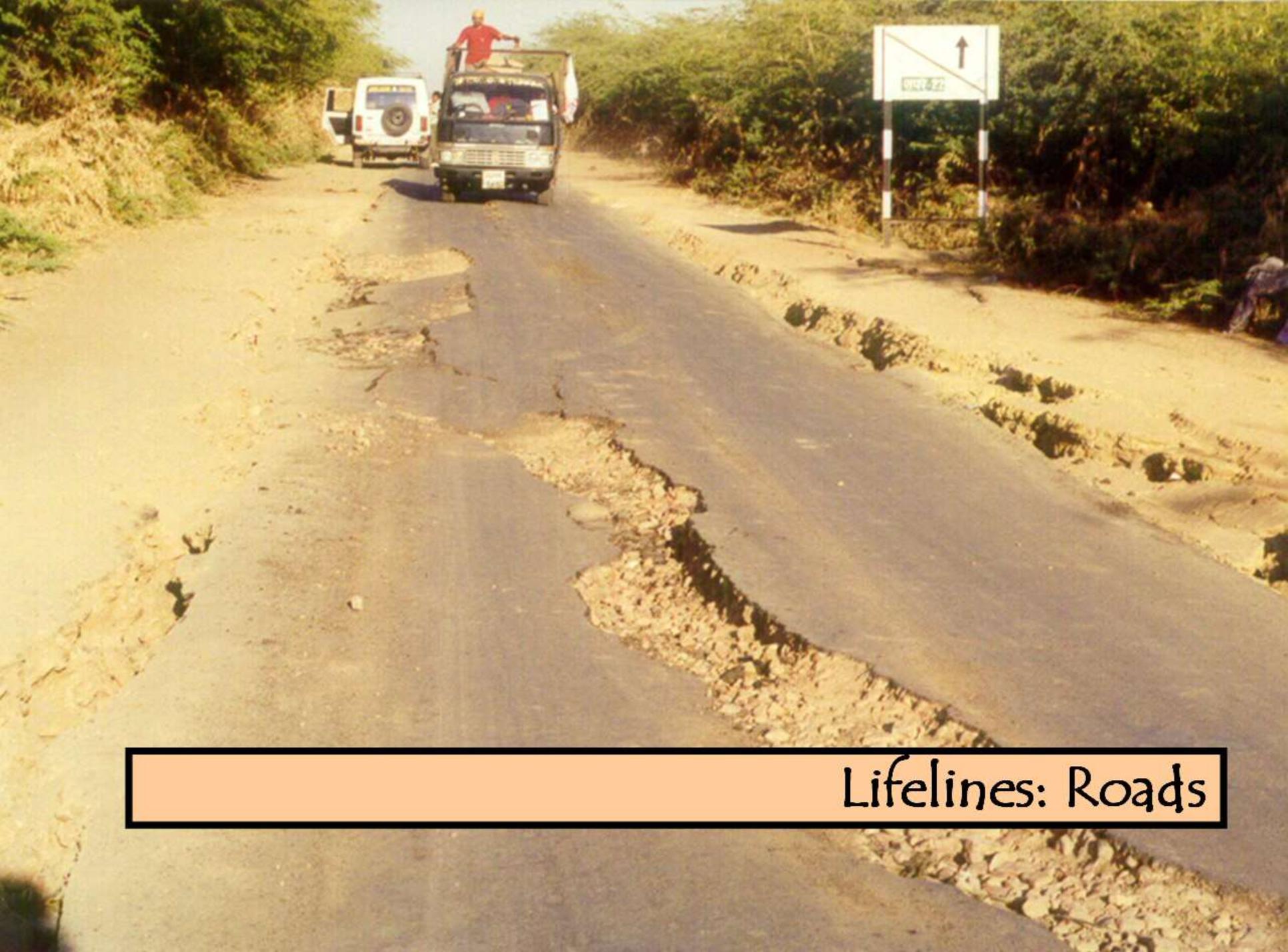
Lifelines



Lifelines: Communication



Lifelines: Bridges



Lifelines: Roads



Lifelines: Transportation Network



Lifelines: Electrical Power



Lifelines: Harbour Structures



Economy: Industrial Damage



# Heritage Buildings







Losses Difficult to Estimate..



Life and Society: Generations







Thank You